



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

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May 25, 2012

George G. Belfield, Jr., Town Manager
Town of Tappahannock
Tappahannock, VA 22560

Subject: VPDES Permit No. VA0071471 Town of Tappahannock Wastewater Treatment Plant –
Response to Owner Comments on the 2012 Draft Permit Package

Transmitted via email to: tappmgr@crosslink.net

Dear Mr. Belfield,

DEQ has reviewed the letter dated April 24, 2012 with the subject “Town of Tappahannock WWTP (VA0071471) Draft VPDES Permit Reissuance” that provided owner comments on the draft 2012 permit package. Please find below a response to the concerns and questions raised.

Nutrient Limits

1. As required by 9VAC 25-40-70 *Strategy for Chesapeake Bay Watershed*, the board shall include technology-based effluent concentration limitations for any facility that has installed technology for the control of nitrogen and phosphorus whether by new construction, expansion, or upgrade. The limitations will be based on the level of technology installed by the facility. 9VAC 25-40-70A.1 specifies that an owner or operator of a facility authorized by a VPDES permit first issued before July 1, 2005 that expands the facility to a discharge of 100,000 gallons or more per day directly into tidal waters shall install state-of-the-art nutrient removal technology at the time of the expansion. The state-of-the-art nutrient removal technology shall achieve an annual average total nitrogen effluent concentration of 3.0 mg/L. Per 9VAC 25-40-70A.4, on a case-by-case basis the board may establish a technology-based standard and associated concentration limitation less stringent than the standard specified in 9VAC 25-40-70A.1. This case-by-case decision may be made based on a demonstration by an owner that the specified standard is not technically or economically feasible for the affected facility or require the owner to construct treatment facilities not otherwise necessary to comply with the wasteload allocation without reliance on nutrient credit exchanges. In coordination with DEQ Central Office (A. Brockenbrough 5/22/12 email) DEQ has approved the requested 3.4 mg/L calendar year average total nitrogen limitation in Part I.A.4 of the draft 2012 permit. The limitation is back-calculated from the annual TN load assigned to the facility in the Chesapeake Bay TMDL using the

expansion design flow of 0.95 MGD. With this annual TN limitation in place the annual TN load of the facility at the 0.95 MGD flow tier is expected to meet the Town's allocation laid out in the 9 VAC25-820-70 Registration List (1/1/12) for the Rappahannock River Basin without reliance on purchase nutrient credits. The change has been made in the attached revised draft in accordance with 9VAC 25-40-70A.4.

2. As requested, the reference to 9 VAC 25-40-70.A.4 as the "off-ramp" has been rephrased in section 16, on page 8 of 19, in the draft fact sheet.

Bacteria Limits

In order for the 2012 permit to be in conformance with the Bacterial TMDL for the Hoskins Creek Watershed (EPA approved 3/27/08, SWCB approved 4/28/09) and the Upper Rappahannock Shellfish TMDL (EPA approved 8/10/10, SWCB approved 12/13/10) both a fecal coliform and an enterococci limitation must be included in the permit. The facility was assigned a wasteload allocation for enterococci in the Hoskins Creek TMDL and a fecal coliform wasteload allocation in the Upper Rappahannock Shellfish TMDL. Additionally, compliance with one bacteria limitation does not necessarily equate to compliance with the second bacteria limitation as they are two different strains of bacteria. DMR and permit application data indicate that, at times, both fecal coliform and enterococci bacteria have been present in the effluent at counts greater than the quantification level during the 2007 permit term. The monitoring frequency for both parameters is consistent with agency guidance, GM10-2003 VPDES Permit Manual, as revised 8/25/2011. The fecal coliform limitation is included in the permit due to the Upper Rappahannock Shellfish TMDL and the monitoring frequency is dictated by section MN-3, page 37, of the permit manual. The enterococci limitation serves a dual purpose of fulfilling the requirements of the Bacteria TMDL for the Hoskins Creek Watershed and required bacteria monitoring for facilities that use alternate disinfection (UV) that discharge to saltwaters and transition zones. Reduced monitoring for bacteria is only granted on a case-by-case basis for facilities that use chlorine for a disinfection method. Furthermore, the VPDES permit manual states that monitoring reductions for bacteria are not appropriate when using alternate disinfection (UV). The monitoring frequency of three days per week is consistent with section MN-2, page 2, of the permit manual. No change to the draft permit has been made in response to owner comments regarding bacteria.

Quantification Level for cBOD₅

DEQ previously established the quantification level (QL) for BOD₅ and cBOD₅ as 5 mg/L. However, the most recently approved EPA test methods for BOD set the quantification level at 2 mg/L. In the past year, DEQ has begun revising BOD₅ and cBOD₅ QLs in individual and general permits as they are reissued. The reduced QL is found in the Seafood Processing Facilities general permit and the Single Family Home general permit.

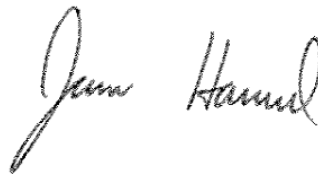
Industrial Pretreatment Program

The VPDES permit manual is updated by DEQ Central Office as needed. The most up-to-date manual has a revision date of 8/25/11. The 8/25/11 edition of the VPDES permit manual was emailed to you on 5/25/12.

The Piedmont Regional Office has edited the pretreatment language to provide additional clarity. Some of these edits have been incorporated into the language in your permit. DEQ's Central Office is in the process of making revisions to the pretreatment language for release to all of the regions. If this language becomes available prior to the public notice of this permit, it will be incorporated into your permit. Attached with this letter is a document containing the Piedmont Regional Office's edits to the pretreatment language. This document was supplied to Central Office for consideration as they work to revise the language and update the permit manual.

Please let me know if the responses above satisfy your comments on the draft permit or if you would like to discuss the draft further. If you have no further comments, at your earliest convenience, please indicate your concurrence on the draft permit package. Please contact me at (804) 527-5046 or via email at Janine.Howard@deq.virginia.gov with any questions or concerns.

Sincerely,

A handwritten signature in cursive script that reads "Janine Howard". The signature is written in black ink and is positioned centrally below the word "Sincerely,".

Janine L. Howard
Water Permit Writer

Copy: Steve Short, Wastewater Treatment Plant Superintendant